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Airborne Laser Office crew practices towing big aircraft

by Ken Englade, Airborne Laser Program Office

KIRTLAND AFB, N.M. — It isn't as difficult as trying to force a square peg into a round hole, but it's close.

There are easier tasks than trying to get an airplane with a 213-foot wingspan through a door that is only 203 feet wide. That's why a dozen and a half people from the Airborne Laser System Program Office, Detachment 2 of the Flight Test Center, Boeing, Edwards AFB, Sandia National Laboratories, the Boeing Commercial Airline Group and the Federal Aviation Administration were sweltering on the tarmac on August 3 practicing a maneuver they will have to put into practice when the world's first completely laser-armed combat aircraft reports for flight tests at Edwards in about two years.

WHEN ROTATING THE TIRES IS A 'BIG DEAL'— Master Sgt. Mark Hall of the Airborne Laser System Program Office demonstrates how a lockpin has to be removed from a 747 gear assembly to allow the wheels to rotate so the plane can be towed into a hangar whose doors are not wide enough to accommodate the aircraft's wingspan.

While at Edwards, the 747-400F will be housed in a hangar at the Birk Test Flight Facility in between flying missions, a condition made necessary because of the high summertime temperatures at Edwards and the heat-sensitivity of some the Airborne Laser's unique equipment. During the summer, it is not unusual for tarmac readings at Edwards to approach 120 degrees Fahrenheit.

When the hangar was built at Birk there were no planes as large as the 747-400 so the doors are not wide enough to allow the plane to be pulled straight into the shelter. So the specially-trained maintenance crew will have to "crab" it in tail first, on an angle. The procedure is roughly equivalent to backing an SUV-sized trailer into a garage whose door was built to accommodate a Volkswagen.

As the first step toward developing a procedure to accomplish the task, maintenance crews and engineers outlined the dimensions of the Birk hangar on an unused section of the flight line with duct tape and orange construction barrels. Then, using powerful aircraft tow tugs, they angled the tail of a 747-100 being used as a demonstrator through the simulated "doors."

With the 747 tail almost halfway in, the maintenance crews removed a 2 ¼-inch lock pin from the body gear assembly and swiveled the wheels into a 36-degree angle, leaving the under-wing gear wheels in their normal position. Once the "slant" was set, the tugs pulled the aircraft inside. The procedure was reversed to bring the aircraft out.

The towing practice was only one of numerous tests and practices scheduled for the ABL before the aircraft, which currently is being modified at the Boeing facility in Wichita, Kan., begins shooting down missiles in 2003. **@**